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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/781,966

Applicant(s)

THENTHIRUPERAI, BALAJI S.

Examiner

AMAL ZENATI

Art Unit

2614

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 02 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 8-23, 28 and 30-37 is/are pending in the application.
- 4a) Of the above claim(s) 38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-23, 28 and 30-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

2. **Claims 1 - 9, 13, 14, 15, 16, 18 - 21, 24 - 26, 28 - 35**, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Jost et al (Pub. No.: US 2002/0055916 A1; hereinafter Jost)** in view of **Sibal et al (US Patent No.: 7,210,098 B2; hereinafter Sibal)**.

Consider **claims 1, 8, 14, and 31**, **Jost** clearly shows and discloses a method and a system for routing an incoming call from a caller, wherein the system comprises a telephony interface, a prompt generation, a voice response unit; a data compilation unit and a call routing unit (fig. 4), an article of manufacture comprising: a storage medium having a plurality of machine-readable instructions stored thereon, wherein the instructions when executed (page 6, paragraph 0092, line 4), provide for: receiving the incoming call; generating a plurality of prompts to solicit respective responses from the caller (page 1, paragraphs 0004, 0015, and 0016), wherein the prompts are included in and generated from voice browser pages (page 6, paragraph 0096); receiving, from the caller, the respective responses (page 3, paragraph 0044); assigning multiple respective weights to the call, the one or more respective weights

corresponding respectively to each of (based upon) the one or more responses (page 2, paragraphs 0017, 0020); processing the weights to determine one or more overall weights (sum of the scores) of the call; routing the call to an appropriate location based, at least in part, on the one or more overall weights of the call (page 2, paragraph 0041); a browser (translator or interpreter), wherein the prompts are included in one or more browser pages that are operatively coupled in the system (page 6, paragraphs 0092 and 0096), wherein the browser comprises a voice browser and the browser pages are implemented with VoiceXML (page 11, paragraph 0179; and page 3, paragraphs: 0044 and 0045), wherein the respective weights are stored in one or more attribute tags (page 3, paragraph 0041), wherein the respective responses are stored in one or more attribute tags (page 3, paragraph 0044; and page 6, paragraph 0092); However, **Jost** does not specifically disclose the tags that are stored information (information such as weights or responses) communicate between at least two of the one or more browser pages.

In the same field of endeavor, **Sibal** clearly discloses a method and a system wherein, the tags that store information (information such as weights or responses) can be communicated between at least two of the one or more browser pages (abstract).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to let the tags that store information can be communicated between at least two of the one or more browser pages as taught by **Sibal** in **Jost**, in order to synchronize each browser to equivalent parts of the content, so one browser can inform the other browser about events that have taken place in voice or audio mode (abstract).

Consider **claim 2**, **Jost** and **Sibal** clearly show the method, wherein at least one of the data compilation unit and the call routing unit determines at least one of a priority of the call and a classification of the call and wherein the call routing unit routes the call based on at least one of the priority of the call and the classification of the call (**Jost**: page 1-2, paragraph 0015).

Consider **claims 3 and 15, Jost and Sibal** clearly show the method and the system, wherein the prompt generation unit generates prompts using text-to-speech conversion (Jost: page 4, paragraph 0069, lines 9-10).

Consider **claims 4 and 16, Jost and Sibal** and clearly show the method and the system, wherein the prompt generation unit generates prompts using digital audio files (Jost: page 2, paragraph 0018, and line 5).

Consider **claim 9, Jost and Sibal** clearly show the system, wherein the browser pages are generated by an application providing programming feature to: define the one or more prompts; define relationships between the one or more prompts; define the respective weights associated with specific responses from the caller (Jost: page 1, paragraph 0014); and define one or more trigger points at which the data compilation unit will process the respective weights prior to determine the one or more overall weights used for routing the call (Jost: page 2, paragraph 0017).

Consider **claim 13, Jost and Sibal** clearly show the system, wherein the respective weights and the one or more overall weights include a plurality of weight types that may be used by the call routing unit when routing the call (Jost: page 2, paragraph 0021, lines 5- 11).

Consider **claims 18, and 32, Jost and Sibal** clearly show the method and the system, wherein assigning weights comprises assigning the respective weights in a plurality of categories associated with the call (Jost: page 2, paragraphs 0017; and page 3, paragraph 0041).

Consider **claims 19 and 33, Jost and Sibal** clearly show the method and the system, wherein processing the weights comprises performing an arithmetic operation one the one or more respective weights to obtain the one or more overall weights (Jost: page 3, paragraph 0032).

Consider **claims 20, 21, 34, and 35, Jost and Sibal** clearly show the method and the system, wherein performing the arithmetic operation comprises calculation one or more sums (product) form the one or more respective weights (Jost: page 3, paragraph 0041, lines 8-10).

Consider **claims 28, Jost and Sibal** clearly show the system, wherein the browser pages (translator) are implemented as part of a customer care center call routing application (Jost: page 6, paragraph 0092).

Consider **claims 30, Jost and Sibal** clearly show the system, wherein the respective weights and the at least one overall weight includes a plurality of weight types (Jost: page 2, paragraph 0021, lines 5-10).

3. Consider **Claims 10 and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Jost (Pub. No.: US 2002/0055916 A1)** in view of **Sibal et al (US Patent No.: 7,210,098 B2; hereinafter Sibal)** and further in view of **Fox et al (Pub. No.: US 2002/0077823; hereinafter Fox)**

Jost and Sibal disclose the claimed invention above and furthermore discloses receiving the responses comprises receiving at least one of spoken responses but lack teaching the details of receiving the responses comprises receiving dual-tone-multi-frequency responses (DTMF).

In the same field of endeavor, **Fox** clearly discloses the system, wherein the response receiving unit comprises at least one of a speech interpreter for recognizing spoken responses from the caller and a dual-tone multi frequency (DTMF) (Page 2, paragraph 0020).

Fox discloses the above steps for the purpose of detect DTMF tones respond by a user (page 2, paragraph 0020)).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use DTMF as taught by Fox in Jost and Sibal, in order to detect DTMF tones respond by a user.

4. Consider **Claims 11, 22, and 36** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Jost (Pub. No. US 2002/0055916 A1)** in view of **Sibal et al (US Patent No.: 7,210,098 B2; hereinafter Sibal)** and further in view of **Lipinski (Pub. No. US 2003/0084144 A1)**

Jost and Sibal disclose the claimed invention above but lack teaching of using the heuristic method.

In the same field of endeavor, **Lipinski** clearly discloses the system, wherein the call routing unit employs a heuristic routing method (page 3, paragraph 0020, line10).

Lipinski discloses the above for the purpose of providing immediate access for routing a call to a particular destination or channel (page 3, paragraph 0021, lines 10 - 16).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use both methods as taught by **Lipinski** in **Jost and Sibal**, in order to provide immediate access for routing a call to a particular channel.

5. Consider **Claims 12, 23, and 37** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Jost (Pub. No. US 2002/0055916 A1)** in view of **Sibal et al (US Patent No.: 7,210,098 B2; hereinafter Sibal)**, further in view of **Lipinski (Pub. No. US 2003/0084144 A1)** and further in view of **Alspector (US Patent # 4,874,963)**

Jost, Sibal and Lipinski disclose the claimed invention above but lack teaching of using a traveling salesman problem solution method for the call routing.

In the same field of endeavor, **Alspector** clearly discloses the system, wherein the heuristic routing method comprises one of a simulated annealing method and a traveling salesman problem solution (col. 10, lines 27-31).

Alspector discloses the above for the purpose of providing immediate access for routing telephone calls through a multiplicity of trunks (col. 10, lines 27-31).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use both methods as taught by **Alspector** in **Jost, Sibal, and Lipinski**, in order to provide immediate access for routing a call to a particular destination.

Response to Arguments

6. The present Office Action is in response to Applicant's amendment filed on December 02, 2008; Applicant has cancelled claim 38; claims **1-4, 8-23, 28, and 30-37** are now pending in the present application.

7. Applicant argues regarding the claims 1, 14, and 31 on pages 9-12 of the Applicant's Response that "although Sibal discloses passing information between browsers, Sibal does not disclose doing so between pages of a VoiceXML browser;" moreover, Applicant argues that "the idea of synchronizing the state of a voice browser and a visual browser does not objectively suggest passing information between pages in one type of browser." Applicant argues that "Jost and Sibal would not be logically compelled to modify Jost so as to communicate assigned respective weights in attribute tags between voice browser pages as recited in Applicant's claims."

The Examiner respectfully disagrees with Applicant's argument, the Examiner is required to interpret the claims in the broadest most reasonable interpretation. The independent claims state, "a browser wherein the prompts are included in **one or more** browser pages..." which must be interpreted as one browser page to achieve the broadest most reasonable interpretation. This interpretation in combination with the fact that final limitation being argued is contained within a clear "wherein" clause, (see MPEP 2111.04 [R-3]) causes the final limitation which calls for "...at least two of the **one or more** browser pages," to be read as merely suggested or made optional, thus in the broadest reasonable interpretation the examiner would not consider this limitation. However, in good faith to the applicant, the Examiner has examined the limitation as it would have been interpreted if it were properly written ("two or more browser pages") in an effort to expedite prosecution. Moreover, the Examiner shows that Jost teaches in the cited reference "*the machine operation can be the selection and execution of a spoken dialogue module such as a VOXML file*" (Page 11, paragraph 0179). It is well known that voice command application can be made up of voice markup files. VOXML is a language for creating these voice markup

files which is a tag based language similar to the HTML language. In order for voice command platform to execute an application or other tag based application the platform should include a browser or interpreter (translator), since the browser can interpret voice markup files and make them available to the user. Moreover, Jost teaches in the cited reference that a voice command may include a set of *stored voice prompts in the form of digitized audio files (e.g. *.wave)* (page 6, paragraph 0096). As a result, Jost teaches a browser (translator), wherein the prompts are included in one or more browser pages that are operatively coupled in the system, wherein the browser comprises a voice browser and the browser pages are implemented with VoiceXML; since all these are features for implementing VOXML. Also, in page 17, lines 21-23, the original specification states, "Such browser pages may be implemented in extensible-markup-language XML, voice-XML (VXML), or any other appropriate programming language for implementing such browser pages." In addition, Jost teaches the respective weights are stored in one or more attribute tags (paragraphs: 0020-0022, 0041, 0045, 0082, and 0142-0147) comparing to the original specification in page 18, lines 13-29, the original specification states "of course, other possibilities for communicating weights that have been assigned to a call are possible. For example, software variables may be assigned to store assigned weights. These variables may then be passed from one browser page (translator) to another as parameters." However, Jost does not explain clearly the mechanism that show the information that stored in one attribute tag can be communicated between at least two or more browser pages. Therefore, the Examiner shows that Sibal does teach the information (information can be weights) that stored in one attribute tag can be communicated between two or more browser pages in one type of browser (see Sibal: fig. 4). As a result, Sibal shows the possibilities for communicating information; for example, software variables may be assigned to store assigned information (such as weights parameters that used in VoicXML as taught in Jost). These variables may then be passed from one browser page to another as parameters (col. 8, lines 30-67, and col. 9, lines 1-34). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to let the tags

that store information can be communicated between two or more browser pages as taught by Sibal in Jost, in order to let one browser page can inform events that have taken place in voice or audio mode or pass information (such as variables weights) to the other browser page.

Therefore, in view of the above reasons, Examiner maintains rejections.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amal Zenati whose telephone number is 571- 270- 1947. The examiner can normally be reached on Monday-Friday from 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on 571- 272- 7499. The fax phone number for the organization where this application or proceeding is assigned is 571- 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained

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from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/CURTIS KUNTZ/
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March 9, 2009